

REMARKS

The withdrawal of the previous obviousness and provisional nonstatutory double patenting rejections is gratefully acknowledged. Reconsideration of the present application in view of the above amendments and following remarks is respectfully requested.

Status of the Claims

Claims 11-16 and 19 are presented. Claims 11 and 19 are amended for clarity, and to address the new matter rejections as discussed below. Support is found throughout the specification as originally filed. No claims are cancelled and no new claims are added in the present amendment.

No new matter has been introduced.

Summary of the Invention as Claimed

As presently amended, claims 11-16 are directed to a process for producing a flattened coating comprising the steps of (a) introducing into a self-curing or radiation-curing coating system a liquid dimerdiol (meth)acrylate in an amount effective to flat the coating system, the dimerdiol (meth)acrylate having a degree of esterification of at least 50%, (b) applying a coating of the flattened coating system to a substrate comprising glass, and (c) curing the coating, wherein the cured coating is flattened with respect to the same coating without the dimerdiol (meth)acrylate.

Claim 19 is directed to a method for flattening a substrate surface comprising glass, comprising the steps of applying a self-curing and/or radiation-curing coating system to a surface comprising glass, and curing, wherein the coating system comprises a dimerdiol (meth)acrylate having a degree of esterification of at least 50%, in an amount effective to flat the cured coating.

Rejections under 35 U.S.C. § 112, first paragraph

Previously pending claims 11 and 19 were rejected under 35 U.S.C. § 112, first paragraph, with regard to the phrase "at least one" being allegedly new matter. Even though applicants do not necessarily agree with the Examiner in this regard, in order to further prosecution, the claims have been amended to eliminate the phrase "at least one".

In view of these amendments, the Examiner is respectfully requested to withdraw the new matter rejections.

Rejections under 35 U.S.C. § 103(a)

Previously pending claims 11-16 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kigawa et al. (US 5,798,434, "Kigawa"). Applicants respectfully traverse the rejection.

Kigawa discloses a monomer mixture which is useful in the synthesis of polymers, such as various kinds of resin materials for optical applications. The mixture may comprise dimerdiols/trimertriols esterified with an α,β -unsaturated carboxylic acid, and may be used as an overcoating agent.

The Examiner stated that "these dimer diols of carboxylic acids **inherently** have a flattening property." (Office Action, page 3, number 6; emphasis added). However, Kigawa fails to teach a flattening or matting property of his monomer mixture, and the Examiner has cited no reference to demonstrate that one skilled in the art at the time of the invention would have possession of the knowledge of the beneficial flattening properties of certain dimerdiol (meth)acrylates as discovered by applicants, apart from applicant's present disclosure. The MPEP § 2112 IV states that the "Examiner must provide rationale or evidence tending to show inherency":

"The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) (The claims were drawn to a disposable diaper having three fastening elements. The reference disclosed two fastening elements that could perform the same function as the three fastening elements in the claims. The court construed the claims to require three separate elements and held that the reference did not disclose a separate third fastening element, either expressly or inherently.). >Also, "[a]n invitation to investigate is not an inherent disclosure" where a prior art reference "discloses no more than a broad genus of potential applications of its discoveries." *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1367, 71 USPQ2d 1081, 1091 (Fed. Cir. 2004) (explaining that "[a] prior art reference that discloses a genus still does not inherently disclose all species within that broad category" but must be examined to see if a disclosure of the claimed species has been made or whether the prior art reference merely invites further experimentation to find the species).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) (Applicant's invention was directed to a biaxially oriented, flexible dilation catheter balloon (a tube which expands upon inflation) used, for example, in clearing the blood vessels of heart patients). The examiner applied a U.S. patent to Schjeldahl which disclosed injection molding a tubular preform and then injecting air into the preform to expand it against a mold (blow molding). The reference did not directly state that the end product balloon was biaxially oriented. It did disclose that the balloon was "formed from a thin flexible inelastic, high tensile strength, biaxially oriented synthetic plastic material." *Id.* at 1462 (emphasis in original). The examiner argued that Schjeldahl's balloon was inherently biaxially oriented. The Board reversed on the basis that the examiner did not provide objective

evidence or cogent technical reasoning to support the conclusion of inherency)."

Further, applicants' claims are directed to a **process** for producing a flatted coating which comprises in the first step adding a liquid dimerdiol (meth)acrylate to a coating system. Applicants do not claim a dimerdiol (meth)acrylate, but a **process of flatting a coating**.

Still further, the Examiner has mistakenly stated that clay and other solid materials which might inherently have a flatting property, may be present (Office Action, page 3, number 6). However, a careful reading discloses that Kigawa teaches that clays may be used as the **acid catalyst for dimerization** of unsaturated fatty acids (the first step in producing the dimerdiols), and that the catalysts are removed from the mixture after they have served their catalytic function (cf. Example 1, col. 7, lines 52-60). No solids, other than solid acid catalysts for use in the dimer acid production, are disclosed by Kigawa.

In view of these facts, the Examiner has failed to establish a *prima facie* case of obviousness over the cited art, and therefore, applicants' claims, as presently amended, define novel and unobvious subject matter over Kigawa.

Previously pending claims 11-16 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dershem et al. (US 6,121,358, "Dershem"). Applicants respectfully traverse the rejection.

Dershem discloses hydrophobic vinyl monomers and formulations containing them, having appropriate properties for use in the electronics industry as laminates, solder masks and liquid encapsulants for electronic components. One of the many classes of hydrophobic vinyl monomers disclosed comprises a diacrylate of a dimer diol. Fillers such as silicon dioxide (silica) may be added.

The Examiner stated that "both the dimer diol acrylate and the filler would inherently have flattening properties." (Office Action, page 3, number 7). However, again, Dershem fails to teach a flattening or matting property of his monomers or formulations, and the Examiner has cited no reference to demonstrate that one skilled in the art at the time of the invention would have possession of the knowledge of the beneficial flattening properties of certain dimerdiol (meth)acrylates as discovered by applicants, apart from applicant's present disclosure. As discussed above, the MPEP § 2112 IV states that the Examiner must provide rationale or evidence tending to show inherency (*loc. cit.*).

Further, applicants' claims are directed to a **process** for producing a flattened coating which comprises in the first step adding a liquid dimerdiol (meth)acrylate to a coating system. Applicants do not claim a dimerdiol (meth)acrylate, but a **process of flattening a coating**.

Still further, Dershem fails to disclose glass, *per se*, as a substrate. In contrast to the Examiner's statement, claim 22 (the undersigned presumes that claim 20 is actually intended, but this claim is directed to the **filler** not the **substrate**) does not disclose glass as a substrate. Indeed, the citations pointed to by the Examiner, actually disclose **woven fabrics** of various glass fibers (col. 14, line 66, through col 15, line 11) and glass **cloth** (col 1, lines 55-62). Applicants aver that such woven/cloth materials are different from the support that is commonly known in the art as simply **glass**.

In view of these facts, the Examiner has failed to establish a *prima facie* case of obviousness over the cited art, and therefore, applicants' claims, as presently amended, define novel and unobvious subject matter over Kigawa.

Conclusion

In view of the above claim amendments and remarks, applicants believe that all of the pending claims as presently amended are in condition for allowance. Therefore, the Examiner is respectfully requested to enter the amendments, reconsider, withdraw the rejections and allow the claims.

If any additional fees are required in support of this application, authorization is granted to charge our Deposit Account No. 50-1943.

Respectfully submitted,

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Date

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